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Younger Americans' Reading and Library Habits

More than eight in ten Americans ages 16-29 read a book in the past year, and six in ten used their local public library. Many say they are reading more in the era of digital content, especially on their mobile phones and on computers.

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Summary of findings

More than eight in ten Americans between the ages of 16 and 29 read a book in the past year, and six in ten used their local public library. At the youngest end of the spectrum, high schoolers in their late teens (ages 16-17) and college-aged young adults (ages 18-24) are especially likely to have read a book or used the library in the past 12 months. And although their library usage patterns may often be influenced by the requirements of school assignments, their interest in the possibilities of mobile technology may also point the way toward opportunities of further engagement with libraries later in life.

The Pew Research Center's Internet & American Life Project has taken a special look at readers between the ages of 16 and 29 because interest in them is especially high in the library world and the publishing world. This report examines how they encounter and consume books in different formats. It flows out of a larger effort to assess the reading habits of all Americans ages 16 and older as e-books change the reading landscape and the borrowing services of libraries.¹

The main findings in this report, including all statistics and quantitative data, are from a nationally-representative phone survey of 2,986 people ages 16 and older that was administered from November 16-December 21, 2011. This report also contains the voices and insights of an online panel of library patrons ages 16-29 who borrow e-books, fielded in the spring of 2012.

Among the main findings:

- 83% of Americans between the ages of 16 and 29 read a book in the past year. Some 75% read a print book, 19% read an e-book, and 11% listened to an audiobook.
- Among Americans who read e-books, those under age 30 are more likely to read their e-books on a cell phone (41%) or computer (55%) than on an e-book reader such as a Kindle (23%) or tablet (16%).
- Overall, 47% of younger Americans read long-form e-content such as books, magazines or newspapers. E-content readers under age 30 are more likely than older e-content readers to say that they are reading more these days due to the availability of e-content (40% vs. 28%).
- 60% of Americans under age 30 used the library in the past year. Some 46% used the library for research, 38% borrowed books (print books, audiobooks, or e-books), and 23% borrowed newspapers, magazines, or journals.
- Many of these young readers do not know they can borrow an e-book from a library, and a majority of them express the wish they could do so on pre-loaded e-readers. Some 10% of the e-book readers in this group have borrowed an e-book from a library and, among those who have not borrowed an e-book, 52% said they were unaware they could do so. Some 58% of those under age 30 who do not currently borrow e-books from libraries say they would be "very" or "somewhat" likely to borrow pre-loaded e-readers if their library offered that service.

Among those in this under-30 age group, three distinct clusters emerge: high schoolers (ages 16 and 17), college-aged young adults (ages 18-24), and early-career adults (ages 25-29):

¹ All reports in this series can be found at: http://libraries.pewinternet.org

- High schoolers (ages 16-17) are especially reliant on the library for their reading and research
 needs. They are more likely than other age groups to have used the library in the past year,
 especially to have checked out print books or received research assistance. In addition, they are
 more likely than others to get reading recommendations at the library.
 - However, despite their greater use of their local public library, high schoolers are less likely than older age groups to say that the library is important to them and their family. Just over half consider the library "very important" or "somewhat important" to them and their families, compared with roughly two-thirds of older Americans. At the same time, these high school-aged respondents do offer some clues as to what other roles the library could play in their lives. While generally as likely to own e-book reading devices as older Americans, high schoolers are significantly *more* likely to say that they would be interested in checking out pre-loaded e-readers from their local public library if this service was offered.
- College-aged adults (ages 18-24) show interesting shifts in their reading habits compared with high schoolers (ages 16-17). They have the highest overall reading rate of any age group, and exhibit an increased interest in e-books and audiobooks compared with younger readers.
 College-aged adults are more likely than high schoolers to purchase their books, but are also more likely to borrow books from friends and family.
- Adults in their late twenties (ages 25-29) exhibit different patterns when compared with
 younger age groups. They are less likely to have read a book in the past year, and those who do
 read books are more likely to have purchased their most recent book. Yet, even as their reliance
 on their local public library dips, adults in their late twenties start to express a greater
 appreciation for libraries in general; almost three-quarters say that the library is important to
 them and their families.

General reading habits

According to our December 2011 national survey, Americans under age 30 are more likely than older adults to do reading of any sort (including books, magazines, journals, newspapers, and online content) for work or school, or to satisfy their own curiosity on a topic. About eight in ten say they read for these professional or educational reasons, more than older age groups. And about three-quarters of younger Americans say they read for pleasure or to keep up with current events.²

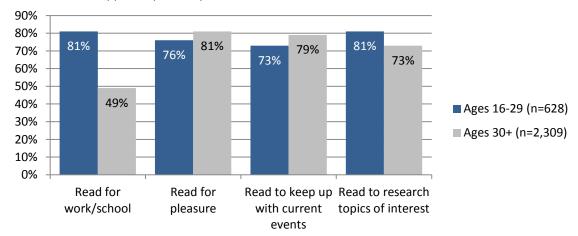
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² For more information about Americans' reading habits, including e-reading habits, see "The rise of e-reading" (2012). http://libraries.pewinternet.org/2012/04/04/the-rise-of-e-reading/

Reasons for reading

% in each age group who read any type of material (including books, magazines, journals, newspapers, and online content) for the following reasons



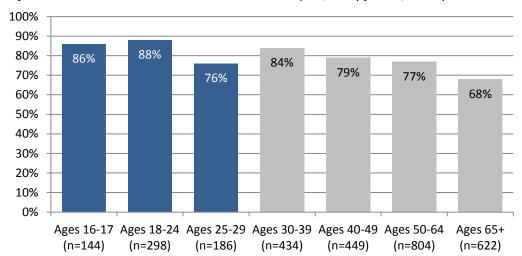
Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

Some 78% of Americans ages 16 and older had read at least one book in any format in the previous 12 months, including 83% of those under age 30.³ High schoolers (ages 16-17) and college-aged adults (ages 18-24), along with adults in their thirties, are especially likely to have read a book in the past year, while adults ages 65 and older are the least likely to have read a book in that time span.

³ This includes print books, e-books, and audiobooks.

Book readers by age

% of all Americans who have read a book in whole or in part, in any format, in the past 12 months



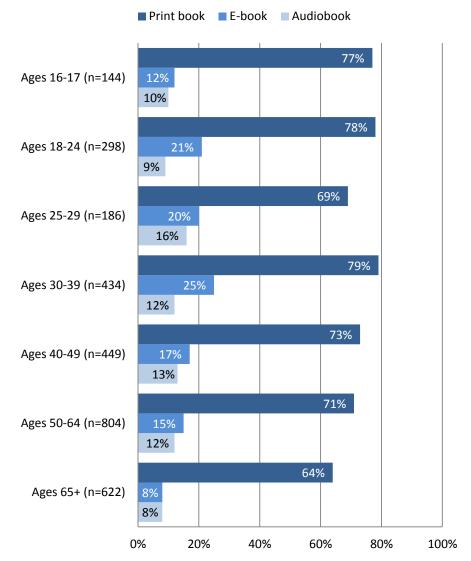
Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

Looking at book reading by format, we find that 72% of Americans read at least one print book in the past year; 16% read at least one e-book; 11% listened to at least one audiobook. Additionally, some general patterns by age group emerged:

- There are few differences between readers under age 30 and older adults when it comes to reading books in print, although readers over age 30 are slightly more likely to have read a **print book** in the past year than those ages 16-29 (93% vs 90%).
- High school-aged readers (ages 16-17), along with readers over 65, are *less* likely than other age groups to have read an **e-book** in the past year.
- Readers in their late twenties (ages 25-29) are somewhat more likely than other age groups to have listened to an **audiobook**.

Book formats read in the past year, by age group

% of all Americans in each age group who read a book in each format in the past 12 months. For instance, 77% of Americans ages 16-17 read a print book in the past year.



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

As shown in <u>previous</u> reports, e-book reading is not confined to dedicated e-reading devices, such as e-readers or tablets.⁴ This is especially true among younger e-book readers. In fact, a majority of e-book readers under age 30 consume their e-books on a desktop or laptop computer; the second most popular

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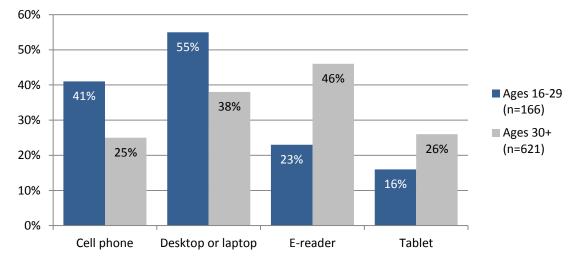
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⁴ "The rise of e-reading" (2012), Part 4: http://libraries.pewinternet.org/2012/04/04/part-4-the-state-of-e-book-reading

method is by cell phone (41% read their e-books this way). Some 23% of e-book readers ages 16-29 read e-books on an e-reader like a Kindle or Nook, and just 16% read e-books on a tablet computer.

E-books beyond e-readers

Among people who read e-books, the percentage in each age group who read their e-books on the following devices. For instance, 41% of e-book readers ages 16-29 read e-books on a cell phone.



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells. N for people who read an e-book in the past 12 months=793.

Among Americans who read a book in any format in the past year, 45% say they read a book "yesterday." Looking more closely at format choice, those on the youngest and oldest ends of the spectrum—high schoolers, college-aged adults, and those ages 65 and older—are more likely than other age groups to say that they read a print book on the day prior to the survey. By comparison, adults in their late twenties, thirties, and forties are more likely to say that the book they read yesterday was in an e-book or audiobook format.

How e-content has affected younger Americans' reading habits

Overall, 43% of Americans (and 47% of those between the ages of 16 and 29) read long-form e-content such as books, magazines or newspapers. Some 30% of these e-content readers (including 40% of those under age 30) say that they now spend more time reading than they used to due to the availability of e-content. Some 28% of e-content readers over age 30 say they are reading more now.

Many respondents from our online panel of young e-book borrowers discussed how they read more because of the increased availability of e-content. "I am reading more now that I have purchased an e-reader," a college-aged panelist wrote. "I find that by having an e-reader I have developed a habit of reading in my spare time (it's very convenient to take my e-reader with me) and I am discovering more

⁵ As the national 2011 survey was in the field from November 16-December 21, 2011, the number of college-aged students who said they were reading a book "yesterday" may be influenced by final exams and holiday breaks.

books to read on my device," he said. Other respondents mentioned how they read more books while traveling since they began reading e-books, or how they could read a few pages on their phone while waiting in line or between classes.

However, the young respondents on our e-book borrowing panel did not all enjoy reading e-books on every device at their disposal. A college-aged panelist wrote that while he uses his gadgets for web browsing and other activities, he only reads books on his e-reader—"I don't like to read on computer screens similar to my tablet and computer monitors." And many panelists did not necessarily prefer e-books to print in the first place, as a respondent in her late twenties described: "I am a very reluctant technology user. I only occasionally request e-books, as I prefer the overall experience of reading an actual book. It somehow feels more warm and personal."

When to borrow, when to buy

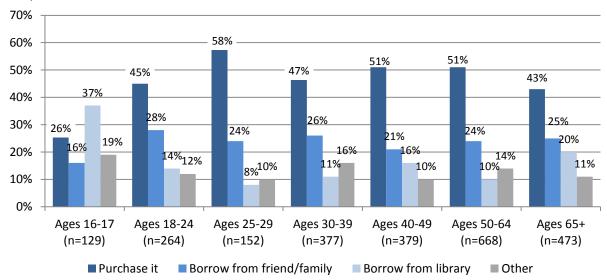
When we asked book readers in our national survey how, in general, they prefer to get their books, we found that a majority of print readers (54%) and readers of e-books (61%) say they prefer to purchase their own copies of these books rather than borrow them from somewhere else. In contrast, just one in three audiobook listeners (32%) prefer to purchase audiobooks they want to listen to, while 61% prefer to borrow them. There were few differences in preferences between readers of different age groups. "It mainly depends on availability at the library and how badly I want to read the book 'right now,'" and online panelist told us. "If the queue for the library e-book is too long, I'll just buy it. If it's a reference book that I'm only using temporarily, I'll borrow it, but if it's something that I foresee needing in the future, I'll buy."

We also queried book readers in our national survey how they had obtained the most recent book they read (in any format). About half (48%) of readers said they had purchased their most recently read book, 24% said they had borrowed it from a friend or family member, and 14% said they borrowed it from a library.

High-school-aged readers were more likely to have borrowed the last book they read from the library than they are to have bought it, a pattern that soon reverses for older adults—almost six in ten readers in their late twenties said they had purchased their last book. And while a plurality of college-aged readers (ages 18-24) purchased the last book they read, they are still more likely than many other age groups to have borrowed the last book they read from a friend.

Thinking about the last book you read, in any format, did you...

Among Americans ages 16+ who read a book in the past 12 months, the percentage who got their most recent book from each source



Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones. N for people who read a book in any format in the past 12 months=2,474.

Among e-book readers, there are no statistically significant differences between those ages 16-29 and those over age 30 regarding where they first turn for e-books; some 78% of e-book readers under age 30 look for e-books first at an online bookstore (compared with 75% of those over 30), while 16% of younger readers look first at the public library (compared with 11% of older respondents).

By contrast, our online panel of e-book borrowers usually preferred to borrow books, and were very particular about which books they chose to purchase. Purchased print books were often referred to as investments of sorts, chosen in order to re-read, share with others, or pass on to one's children. "I only buy brand new print books if it's a series I collect, or a book that has special meaning," a college-aged panelist in a large metro area wrote. "I buy e-books if it's a book that I'm looking forward to but not necessarily one that I need to add to a collection." He added that with certain series, such as *Harry Potter* and *Games of Thrones*, he would sometimes purchase both the print and e-book editions.

Library use

According to our national survey, some 56% of all Americans ages 16 and older have used the library in the past year, including 60% of those under age 30:

- 40% of those ages 16 and older used the library for research (including 46% of those under age 30)
- 36% borrowed books in any format (including 38% of those under age 30)
- 22% used the library to borrow newspapers, magazines, or journals (including 23% of those under age 30)

As shown in the table below, there are many striking differences across age groups. For instance, 72% of high schoolers (ages 16-17) used the library in the past year, making them by far the most likely age group to have done so. Adults ages 65 and older were the least likely to have used a library for any reason, with about half (49%) having done so in the past 12 months.

Library use in the past year

Among Americans ages 16+ in each group, the percentage who have used the library for the following purposes in the past year

	Total used	Total used the library		
	library in the past year	For research	To borrow books	To borrow newspapers /etc.
All ages 16 and older	56%	40%	36%	22%
16-17 (n=144)	72	55	51	20
18-24 (n=298)	58	45	36	23
25-29 (n=186)	54	41	33	25
30-39 (n=434)	57	40	40	20
40-49 (n=449)	59	40	43	21
50-64 (n=804)	56	39	32	24
65+ (n=622)	49	32	28	23

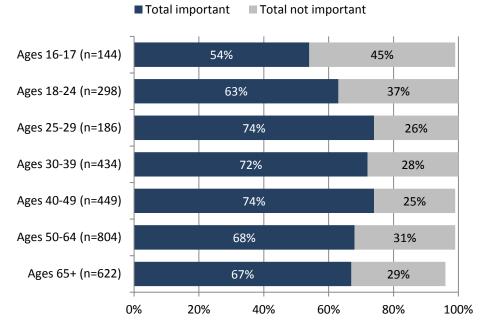
Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones.

High schoolers were also most likely to have used the library for research purposes—55% used the library for research in the past year, compared with 40% of all Americans. And these 16-17 year-olds also led all other age groups in borrowing books, especially print books: 65% of high schoolers who read a print book in the past year had checked one out from a public library in that time period, compared with 48% of all print readers.

Yet while high schoolers led all other age groups in library use, their appreciation for these library services does not follow suit; almost half (45%) of high schoolers—and 37% of college-aged adults—say that the library is not important or "not too important" to them and their family.

How important is the public library to you and your family?

Among Americans ages 16+ in each group, the total percentages of those who said the library was important ("very important" or "somewhat important") and not important ("not too important" or "not important at all") to them and their family



Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones.

How library patrons' habits have changed since they began borrowing e-books

Younger e-book borrowers in our online panel had mixed views on how e-book borrowing had affected their library habits. A high school-aged rural respondent, for instance, wrote that since she started borrowing e-books, "I tend to go to the physical branch less often because if I can borrow a book in digital format, I can start reading it faster." Another panelist wrote that while he preferred borrowing e-books to print books, he would visit the library when that was not possible: "I go to the library branch to search for books that I can't get online, and I also go there to do some reading and discover any new books that the library has gotten in."

Not everyone has seen an effect on their reading habits. "Nothing has changed so far. Even if I can borrow e-books from home I would still like to go and visit the library," a woman in her late twenties told us. "There are many services and events provided by the library that I would like to be a part of." Another wrote, "I pretty much got my Kindle only because the library started offering e-books to check out. I still love books in print and will pick a print book over an e-book if I have the option . . . I would say I go to the library only a slightly less than I used to."

Very few young panelists said that they would like to see e-books replace print books entirely. "As much as I love using my Kindle, I would find it devastating if the library were to dramatically reduce its print collection," a respondent in her late twenties told us, adding, "I love the feel of physical books." Another

panelist wrote: "Though e-books are important, we must keep an emphasis on our physical libraries as a community space and option for lower income and lower education neighborhoods who may not have access or knowledge of e-book devices and e-book use."

Library patrons' experiences with e-book borrowing

How they find out about e-books

The patrons who participated in our online panel generally said they had learned about e-book lending at either their library's physical branch or through direct online communication from the library. Others simply noticed the option for e-books in online catalogues by chance. "I think I found out only because I regularly visit my library's website to reserve books and search the catalog. I don't think I ever saw it advertised anywhere," another panelist in her late twenties wrote. "Maybe they could send out a mailer to let people know?"

Finally, many had been unaware of whether or not their library offered e-books, but started seeking out information on e-book borrowing once they had purchased an e-reader (or were thinking of getting one). "When we thought about purchasing an e-reader, we researched [on the library's website] to see if they supported e-readers," a panelist in his late twenties said.

The checkout process

Overall, our younger online panelists found their libraries' e-book check-out process to be relatively painless; although that is not to say they didn't have suggestions for improvement. "The app is very easy to use and hassle free," a college-aged panelist wrote. "I like that I can read on my phone or iPad, and my page will sync across devices automatically." Many reported that they had no trouble searching for books in the system (although browsing was a different matter).

At the same time, some panelists were frustrated with the multiple log-in screens they are required to navigate when checking out e-books. "It would really be nice if we could check out and download in a few steps, rather than 6+ steps," a college-aged respondent suggested. "It's confusing for all the different devices and it would be nice if the process was the same for a Kindle, Nook, iPad, laptop, etc."

Non-e-book borrowers

In our national survey, we also asked people who do not borrow e-books, including those who do not read them in general, whether they would be interested in certain resources at their local public library. These included classes on how to use e-readers and tablets, classes on how to borrow e-books from the library, and the ability to borrow e-readers pre-loaded with books they wanted to read.

The younger respondents in our national survey were as interested in classes on e-readers and e-book borrowing as older respondents, but they were particularly intrigued by the prospect of borrowing pre-loaded e-readers:

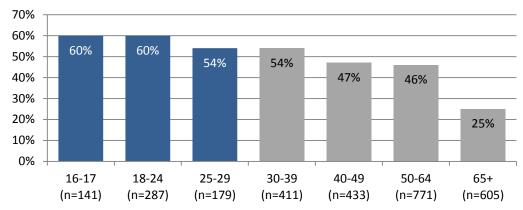
58% of those under age 30 who do not currently borrow e-books from libraries—including 60% of high schoolers and college-aged adults—say they would be "very" or "somewhat" likely to borrow an e-reading device pre-loaded with a book they wanted to read (compared with 46% of all respondents).

- 33% of those under age 30 say they would be "very" or "somewhat" likely to take a library class on how to download e-books onto handheld devices (compared with 32% of all respondents).
- 31% of those under age 30 say they would be "very" or "somewhat" likely to take a course at a library in how to use an e-reader or tablet computer (compared with 31% of all respondents).

How likely non-e-book-borrowers would be to...

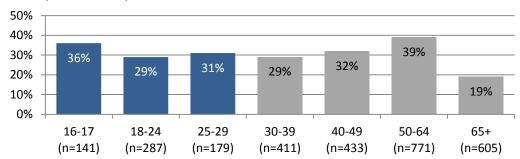
...borrow pre-loaded e-readers from their local library

Among Americans ages 16+ who do not read e-books, or those who read e-books but do not borrow e-books from the library



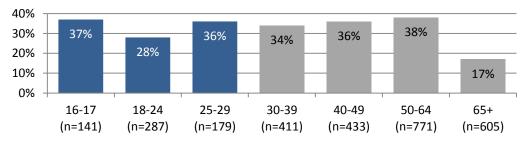
...take classes on how to use e-readers or tablets

Among Americans ages 16+ who do not read e-books, or those who read e-books but do not borrow e-books from the library



...take classes on how to download e-books from the library to e-reading devices (such as e-readers or tablets)

Among Americans ages 16+ who do not read e-books, or those who read e-books but do not borrow e-books from the library



Source: Dec. 2011 results are from a survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones. N for people who do not read e-books or who read e-books but do not borrow e-books from the library =2,874.

About this research

This report explores the world of e-books and libraries, where libraries fit into these book-consumption patterns of Americans, when people choose to borrow their books and when they choose to buy books—with a particular focus on the habits and patterns of younger Americans. It examines the potential frustrations e-book borrowers can encounter when checking out digital titles, such as long wait lists and compatibility issues. Finally, it looks at non-e-book-borrower interest in various library services, such as preloaded e-readers or instruction on downloading e-books.

To understand the place e-reading, e-books, and libraries have in Americans' evolving reading habits, the Bill & Melinda Gates Foundation has given the Pew Internet Project a grant to study this shifting digital terrain. Libraries have traditionally played a key role in the civic and social life of their communities, and this work is aimed at understanding the way that changes in consumer behavior and library offerings might affect that unique relationship between libraries and communities.

This report is part of the first phase of that Gates Foundation-funded research. Our next phase of research will focus on the changing landscape of library services.

Age group definitions

For the purposes of this report, we define younger Americans as those ages 16-29, although we will use several different frameworks for this in-depth analysis. At times we will compare all those ages 16-29 to all older adults (ages 30 and older). When more fine-grained analysis reveals important differences, we will divide younger readers into three distinct groups: high-schoolers (ages 16 and 17); college-aged adults (ages 18-24) who are starting their post-secondary life; and adults in their late twenties (ages 25-29) who are entering jobs and careers. "Older adults" will often be divided into our standard age groups: ages 30-49, 50-64, and 65 and older.

Quantitative data from the national survey

The Pew Internet Project conducted several surveys to complete the work reported here. All quantitative findings in this report, including all specific numbers and statistics about various groups, come from a series of nationally-representative phone surveys. The first was a nationally-representative phone survey of 2,986 people ages 16 and older between November 16 and December 21, 2011. The sample was conducted 50% on landline phones and 50% on cell phones and in English and in Spanish. In addition, the survey included an oversample of 300 additional tablet computer owners, 317 e-reader owners, and 119 people who own both devices. The overall survey has a margin of error of \pm 2 percentage points.

Beyond our December 2011 telephone survey, we asked a modest number of questions about tablets and e-readers in two telephone surveys conducted in January on an "omnibus" survey. These surveys involved 2,008 adults ages 18 and older, and were fielded between January 5-8 and January 12-15. Those surveys were conducted on landline and cell phones and were administered in English. We fielded them to determine if the level of ownership of e-readers and tablets had changed during the holiday gift giving season—and in fact it had. We reported that the level of ownership of both devices had nearly doubled in a month—from 10% ownership for each device in December to 19% in January. The margin of error for the combined omnibus survey data is \pm 2.4 percentage points.

Finally, we asked questions about book reading and ownership of tablets and e-books in a survey fielded from January 20-February 19, 2012. In all, 2,253 adults ages 18 and older were interviewed on landline and cell phone and in English and Spanish. The margin of error for the entire sample is \pm 2 percentage points. In general, all data cited in this report are from the November/December survey unless we specifically cite the subsequent surveys.

Qualitative material from the online panel

The qualitative material in this report, including the extended quotes from individuals regarding e-books and library use, comes from two sets of online interviews that were conducted in May 2012. The first group of interviews was of library patrons who have borrowed an e-book from the library. Some 6,573 people answered at least some of the questions on the patron canvassing, and 4,396 completed the questionnaire.

The second group of interviews was of librarians themselves. Some 2,256 library staff members answered at least some of the questions on the canvassing of librarians, and 1,180 completed the questionnaire. Both sets of online interviews were opt-in canvassings meant to draw out comments from patrons and librarians, and they are not representative of the general population or even library users. As a result, no statistics or specific data points from either online questionnaire are cited in this report.

Acknowledgements

About Pew Internet

The Pew Research Center's Internet & American Life Project is an initiative of the Pew Research Center, a nonprofit "fact tank" that provides information on the issues, attitudes, and trends shaping America and the world. The Pew Internet Project explores the impact of the internet on children, families, communities, the work place, schools, health care and civic/political life. The Project is nonpartisan and takes no position on policy issues. Support for the Project is provided by The Pew Charitable Trusts. More information is available at pewinternet.org.

Advisors for this research

A number of experts have helped Pew Internet in this research effort:

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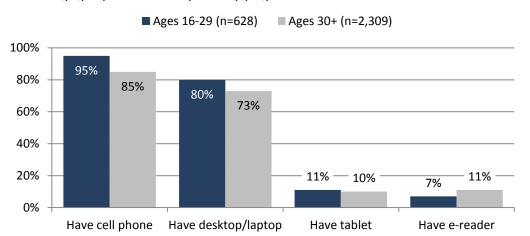
Part 1: Younger Americans' changing reading habits

Technology use and gadget ownership

The changing reading habits chronicled in <u>our recent reports</u> are intrinsically tied to the new formats and devices on which people read. In our late 2011 national survey, we found that younger Americans have high levels of ownership of mobile devices like cell phones and laptops, especially compared with adults ages 65 and older.

Device ownership by age group

% in each age group who have the following gadgets



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

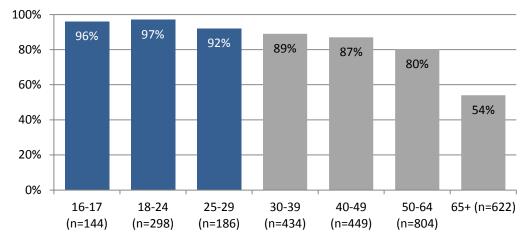
Of course, age is not the only factor at play—we also see strong correlations by education and household income. And there is not always a straightforward correlation; for instance, though adults 65 and older are the age group least likely to own any of the gadgets we asked about, adults in their thirties and forties *most* likely to own e-readers and tablets.⁶

Younger Americans are also online at higher rates than older adults: More than nine out of ten Americans ages 16-29 (95%) use the internet or email, compared with 78% of adults over age 30.

⁶ The most recent data available for ownership of all devices is available on our website: http://pewinternet.org/Static-Pages/Trend-Data-%28Adults%29/Device-Ownership.aspx

Internet use among different age groups

% of all Americans in each age group who use the internet or email



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

Our online panel of young e-book borrowers tended to describe themselves as tech-savvy and constantly connected. A respondent in his late twenties wrote that he is "always" online: "I keep my email and browser with Facebook running all the time. I use it constantly throughout the day. I use my phone for texting and receiving weather alerts. I connect my laptop to my TV to watch Netflix. I try to keep up to date on the latest devices." A high school-aged panelist said, "I use the computer and my iPod Touch all the time to talk with my friends online, email, social networking, picture editing, homework, shopping, just about anything."

Similarly, a panelist in her late twenties wrote that she loves to do research on her internet-connected devices: "I enjoy being able to look up information as soon as I have a thought." Another panelist, in her early twenties, described how technology has become a part of her and her husband's daily routines: "I am usually slower to adopt devices, but the iPad had multiple uses for our household. My husband is in school and uses it to take notes in class. I use it for e-books and for quick email and [traffic alerts] at home. We both take the iPad with us when we travel for email, mapping, and finding information about local eateries and destinations. We also use it for looking up information when we are watching TV, or if we are having a discussion and need to confirm a statement that someone makes in conversation."

Another college-aged panelist wrote that while she has many devices, there are some things they can't replace:

"I love gadgets! I really appreciate the ability to check out books online now via the Kindle, too. I think it would be very helpful to have a wider selection of e-books to check out because I am a [college student] currently, it would save time with homework, etc. I use my Kindle Fire for emails, reading, and homework bits. The cell phone is useful for faster checking of things online or obviously calling or messaging. Nothing beats going to the library on a rainy day though!"

Others did not see themselves as early adopters in general; as a college-aged panelist wrote, "I'm not very tech-savvy, but I love my e-reader!"

Echoing the responses from the rest of the panel, many of our younger respondents cited the high cost of new gadgets as a reason for not always staying up with the latest technology trends. "I like to wait to get digital devices until the second or third version and the price has dropped and they've worked the major bugs out," one college-aged panelist told us, adding: "I am not a huge fan of using the internet on the go, but like being able to carry a Kindle with me; it's lighter and smaller than a book, but has a whole library on it." Another panelist, a woman in her late-twenties wrote, "I'm a web designer who loves new gadgets but can rarely afford them—so I'm an early adopter of concepts, but not usually of the product."

Though our e-book borrowing panelists were by definition e-book readers, they didn't necessarily prefer digital to print, as a respondent in her late twenties described: "I am a very reluctant technology user. I only occasionally request e-books, as I prefer the overall experience of reading an actual book. It somehow feels more warm and personal. However I do take advantage of digital audiobooks from the library, which are very convenient to use while in the car or even while shopping." A college-aged panelist wrote that while he uses his gadgets for web browsing and other activities, he only reads books on his e-reader— "I don't like to read on computer screens similar to my tablet and computer monitors."

Reasons for reading

As discussed in one of our previous reports, we asked all of the respondents in our late-2011 national survey their main reasons for reading. This question is meant to explore respondents' reasons for reading *any* type of content, including books, magazines, journals, newspapers, and online content. Among all Americans:

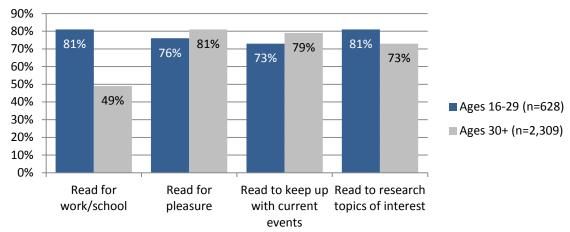
- 80% of all Americans ages 16 and older say they read at least occasionally for pleasure, including 76% of those under age 30.
- 78% of all Americans say they read at least occasionally to keep up with current events, including 73% of those under age 30.
- 74% of all Americans say they read at least occasionally in order to do research on specific topics that interest them, including 81% of those under age 30.
- 56% of all Americans say they read at least occasionally for work or school, including 81% of those under age 30.⁷

In general, younger respondents are more likely to read for work or school, or to research topics of interest to them; older respondents are generally more likely to read for pleasure, or to keep up with current events.

⁷ More information is available in "The rise of e-reading" (2012): http://libraries.pewinternet.org/2012/04/04/the-rise-of-e-reading/

Reasons for reading

% in each age group who read for the following reasons

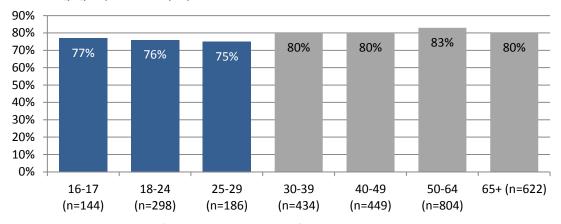


Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

As shown above, respondents ages 16-29 are somewhat less likely than adults 30 and older to say they read for pleasure; 76% of those younger than 30 read for this reason, compared with 81% of adults 30 and older.

Reading for pleasure

% in each age group who read for pleasure

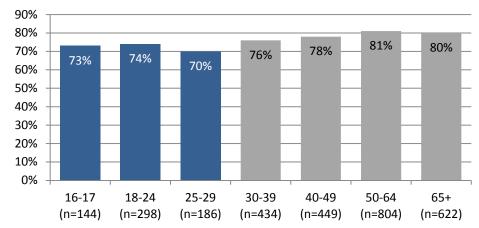


Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

Younger Americans, particularly high schoolers, are more likely than older age groups to say they read to keep up with current events "a few times a week," while older adults are more likely to say they do so every day (and are more likely to read for this reason overall).

Reading to keep up with current events

% in each age group who read to keep up with current events

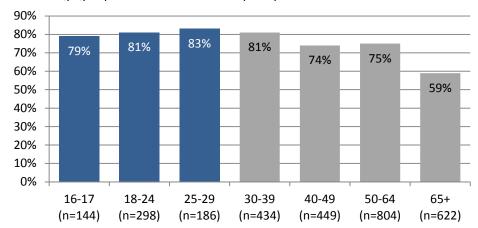


Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

High schoolers and adults 65 and older are less likely to say they read in order to research specific topics they are interested in; college-aged adults, as well as those in their late twenties and thirties, are more likely than other age groups to say they read for this reason.

Reading to research topics of interest

% in each age group who read to research topics of interest

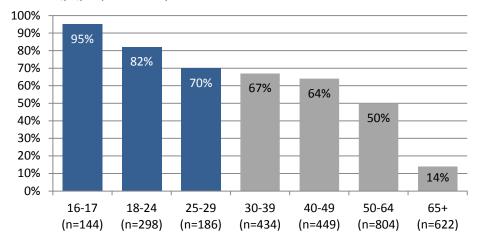


Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

Finally, high schoolers (ages 16-17) are the age group most likely to read daily for work or school: 68% read for work or school every day or nearly every day—significantly more than college-aged adults (52%)—and they are most likely to read for this reason overall.

Reading for work or school

% in each age group who read for work or school



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

Reading habits: Books

According to our December 2011 national survey:

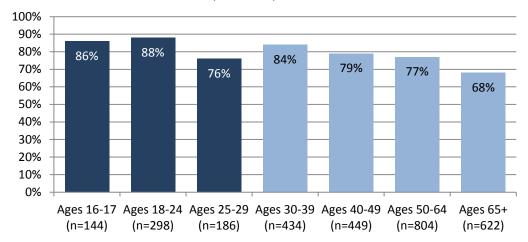
- 72% of all Americans ages 16 and older read at least one book in the past year in print, including 75% of those under age 30.
- 17% of all Americans read at least one e-book, including 19% of those under age 30.
- 11% listened to at least one audiobook, including 11% of those under age 30.

Overall, 78% of all Americans—and 83% of those under age 30—had read at least one book in any format in the previous 12 months. 8

⁸ The Pew Internet Project updated the book-reading and e-book reading figures after the holiday gift-giving season and reported on those higher figures in "The rise of e-reading" (2012): http://libraries.pewinternet.org/2012/04/04/the-rise-of-e-reading/

Book readers by age

% who have read a book in whole or in part in the past 12 months



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

Though the adults over age 65 who read books read significantly more books in the past year than most younger age groups, there are no statistically significant differences by age group based on the median number of books read. (At the same time, those over age 65 were also significantly more likely than younger respondents to have read *no* books in the previous year.)

The following chart shows both the mean (average) number and median (midpoint) number of books read by members of each age group in the previous year.

How many books Americans read

Among book readers, the mean and median number of books each group read in the past 12 months, among all Americans ages 16 and older

	Mean number of books read (average)	Median (midpoint)
All those 16 and older	17	8
Ages 16-17 (n=144)	18	10
Ages 18-24 (n=298)	17	7
Ages 25-29 (n=186)	17	6
Ages 30-39 (n=434)	14	6
Ages 40-49 (n=449)	15	6
Ages 50-64 (n=804)	18	8
Ages 65+ (n=622)	23	12

Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells. N for those who have read book year=2,474.

What younger readers like most about reading books

We also asked all of those who had read a book in the past 12 months to tell us what they like most about reading books. The most common response overall was learning, gaining knowledge, and discovering information; others mentioned escaping reality, becoming immersed in another world, and the enjoyment they got from using their imaginations. In general, different age groups often cited the same reasons for reading, but some differences stood out.

Adults in their forties, fifties, and early sixties, for instance, were more likely than other readers to say they most enjoyed relaxing while reading and having quiet time. And the very youngest readers, high schoolers ages 16-17, were more likely than other age groups to say they especially liked the entertainment value of reading—the drama of good stories, or the suspense of watching a good plot unfold. (This was also the reason most often given by this age group for reading overall.)

Books read over the past year, by format

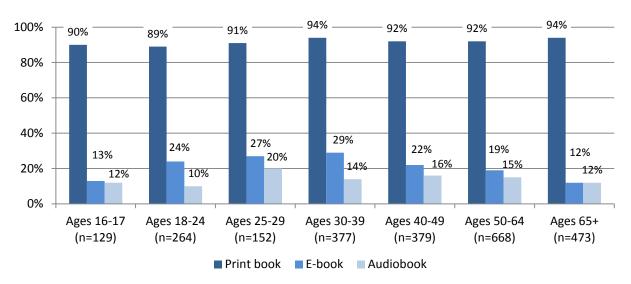
In addition to books read overall, we also asked readers whether they had read books in <u>various formats</u> over the past year. As a rule, book readers in each cohort were equally as likely to have read a printed book in the past year. But there were generational differences that emerged when it came to other formats:

Among book readers, high schoolers (ages 16-17), along with readers over 65, are less likely
than other age groups to have read an e-book in the past year. Overall, 16% of all those ages 16
and older read an e-book in the past year—that amounts to 21% of the book readers in our
sample.

- Book readers over age 30 are somewhat more likely to have read a **print** book in the past year than readers ages 16-29 (93% vs 90%). Overall, 93% of all readers 16 and older read a print book in the past year.
- Readers in their late 20s (ages 25-29) are somewhat more likely than other age groups to have listened to an **audiobook**. Overall, 14% of all readers 16 and older listened to an audiobook in the past year.

Books formats over the past year, by age group

% of book readers in each age group who read this format in the past year, as of December 2011



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells. N for people who read a book in any format in the past 12 months=2,474.

<u>Previous reports</u> have shown that despite the growing popularity of e-readers and tablets, a substantial proportion of e-book readers access their e-books on desktops, laptops, and cell phones. In fact, just as many e-book readers consume e-books on a desktop or laptop computer as on a dedicated e-reader (such as a Kindle or Nook), and more people read e-books on their cell phones than on tablet computers.

However, there are significant differences in e-reading habits by age. When adults over age 30 read e-books, almost half (46%) do so on an e-reader. Yet e-book readers under age 30 are actually *less* likely than older e-book readers to own e-readers, and instead consume their e-books on a desktop or laptop computer (55%) or cell phone (41%).

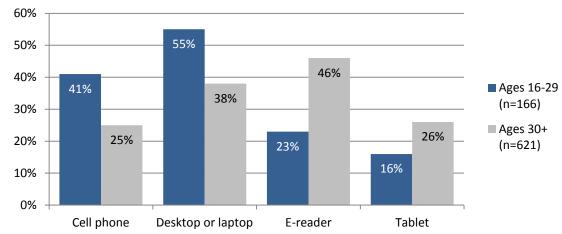
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⁹ Overall, 42% of e-book readers read their books on a computer; 41% read them on a dedicated e-reader like a traditional Kindle or Nook; 29% read them on their cell phones, and 23% read them on a tablet computer. See: "E-books aren't just for e-readers: A deep dive into the data" http://libraries.pewinternet.org/2012/04/20/e-books-arent-just-for-e-readers-a-deep-dive-into-the-data/

E-books beyond e-readers

Among people who read e-books, the percentage in each age group who read their e-books on the following devices. For instance, 41% of e-book readers ages 16-29 read e-books on a cell phone.



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells. N for people who read an e-book in the past 12 months=793.

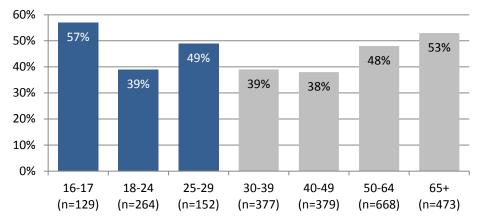
Reading "yesterday"

Among people read a book in the past year, 47% of those ages 16-29 (and 45% of all readers) said they had been reading a book the day before they were contacted for our survey. These "yesterday" readers can paint a picture about what a "typical day" of book readers looks like. In this case, high schoolers and those ages 50 and older are generally more likely than other age groups to say they read a book "yesterday." ¹⁰

¹⁰ As the national 2011 survey was in the field from November 16-December 21, 2011, the number of college-aged students who said they were reading a book "yesterday" may be influenced by final exams and holiday breaks.

How many readers read a book on a typical day

Among those who read a book in the past year, the percentage who read one yesterday



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells. N for people who read a book in any format in the past 12 months=2,474.

In addition, high school-age readers, college-aged readers, and readers 65 and older are more likely to say that they read a **print** book yesterday, while readers in their late twenties, thirties, and forties are more likely to say they read an **e-book** or **audiobook** yesterday.

Magazines and newspapers

When we asked about regular news consumption, we found a clear correlation with age:

- Some 40% of Americans under age 30 regularly read daily news or newspapers, compared with 62% of older adults.
- Younger Americans are also are less likely to read newspapers on any particular day; among these regular news readers, 56% of those under age 30 read news on a typical day, compared with 78% of those over 30.
- Additionally, among regular news readers, 71% of those under age 30 consume their news on a computer or handheld devices such as a tablet, e-reader, or cell phone, compared with 51% of older adults.

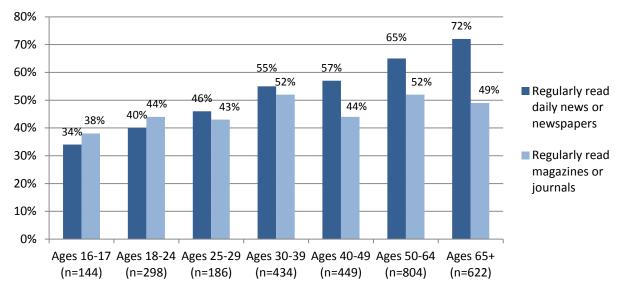
Younger Americans are less likely than older adults to regularly read magazines or journals, but the differences are less stark than with news:

- 42% of those under age 30 regularly read magazines or journals, compared with 50% of older adults.
- Among those who regularly read magazines and journals, 36% of those under age 30 do so on a typical day, compared with 48% of older adults.

 45% of magazine and journal readers under age 30 read their magazines or journals on a computer or handheld devices such as a tablet, e-reader, or cell phone, compared with 30% of older adults.

Portrait of news/newspaper readers and magazine/journal readers

The % of those ages 16+ in each group who regularly read this kind of material



Source: Pew Research Center's Internet & American Life Reading Habits Survey, November 16-December 21, 2011. N=2,986 respondents ages 16 and older. Interviews were conducted in English and Spanish and on landline and cells.

How patron's reading habits have changed since reading and borrowing ebooks.

We asked those who read e-books and those who read digital versions of newspapers, magazines, and journals whether the availability of content in this relatively new format prompted them to spend more time reading now, compared with the past. Overall, 43% of Americans (and 47% of those under age 30) read long-form e-content such as books, magazines or newspapers. Some 30% of all these e-content readers, and 40% of those under age 30, say that they spend more time reading than they used to due to the availability of e-content. Just 28% of e-content readers over age 30 say they are reading more due to the availability of digital content.

"I am reading more now that I have purchased an e-reader," a college-aged panelist wrote. "I find that by having an e-reader I have developed a habit of reading in my spare time (it's very convenient to take my e-reader with me) and I am discovering more books to read on my device," he said. "I read more because I read when I would normally not have a book and be wasting time," another college-aged respondent said, such as when he has to wait in a line or during the 10-minute break between classes. In fact, many respondents of all ages said that they enjoyed reading a few pages throughout the day on their cell phones, although the practice is more common among younger readers.

Another respondent said that the novelty of her e-reader sometimes made reading more enjoyable. "Having a Kindle definitely makes reading feel a little more fun sometimes," she said. "Instant access to a new book is very fun too. Whatever you are in the mood for reading and it is right there!"

A respondent in her late twenties described how she fell in love with a whole new format: "Audiobooks changed my life. I can listen to them anywhere and I can enjoy new stories and new types of books without the trouble of having to carry around a lot of stuff with me or fighting with confusing words or font sizes, and I rarely have to worry about getting to my book when I want because the book is usually available."

Others said that their reading habits hadn't changed very much. One respondent in his late twenties said that he was more likely to read books while traveling because of the e-reader smaller size and lighter weight, but otherwise was not reading more in general. Another respondent wrote that her habits haven't changed drastically, and if anything she has a greater appreciation for print books. "I read at least five print books to every one e-book I read. I am almost doing less 'impulse' reading because it does not seem worth it to me to click on the extra page for the rest of the summary on something that didn't look that interesting to begin with. With a print book, it's very easy to flip it over or open it up to read the blurb."

"I am reading romance novels for the first time, because that's the largest category of e-books at our library, and because nobody can see that I'm reading an embarrassing book with an e-reader," an e-book borrower in her late twenties told us. "I'd say I'm reading more, but part of that is because I want to make the purchase of the e-reader worth it. Also, it fits easily in my purse so I have it with me most of the time. I try to read instead of playing games on my phone, now, which is harder to do with physical books. Also, reading in bed is easier, because I can lay on one side without having to figure out how to move the book every page to see either the left/right page."

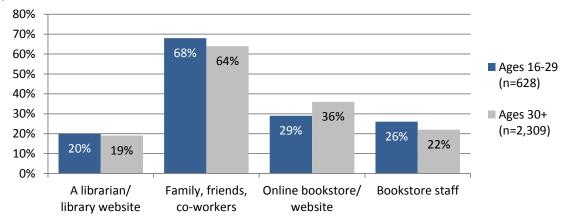
Among those who had read both print books and e-book in the past year, readers young and old generally agreed on when each format is best. However, younger respondents ages 16-29 were more likely than adults ages 30 and older to say that e-books are better than print books for having a wide selection of books to choose from.

Part 2: Where young people discover and get their books

A portion of our survey looked at how American book readers discover and procure books. Generally, book readers of all age groups depend most on family, friends, and co-workers for book recommendations—some 68% of Americans under age 30 find out about books this way, as well as 64% of older adults. However, we do also find some variance associated with age, as detailed below.

Most get book recommendations from friends, family, and co-workers

Among Americans ages 16+, the % in each age group who get book recommendations from the following sources



Source: Dec. 2011 results are from a survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones.

High schoolers (ages 16-17) stand out as the age group most likely to get reading recommendations from a library or librarian (including a library website). Some 36% of high schoolers get recommendations from this source, significantly more than older age groups. ¹¹

Overall, high schoolers and college-aged adults are generally less likely than adults ages 30-64 to get reading recommendations from an online bookstore or other website; however, high schoolers and college-aged adults are about as likely as other adults under 65 to get recommendations from family members, friends, or co-workers, or in-person from bookstore staff.

An online panelist in her late twenties explained how she used a variety of sources to find e-books to read: "I love sharing my ratings and when I've finished a book with my friends on social media through the 'share' feature on my Kindle. I also enjoy downloading samples of books to help me decide whether or not to buy or borrow from the library. I am a heavy user of Goodreads.com and use it to track what I'm reading, have read and want to read and share recommendations with friends."

¹¹ We did not specifically ask about the role of professional book critics as a source of book discovery because we assumed they would be a source that factored into all these options.

Where Americans get book recommendations

Among Americans ages 16 and older

	Library/ librarian	Family, friends, or coworkers	Online	Bookstore staff (in-person)
All ages 16 and older	19%	64%	34%	23%
Ages 16-17 (n=144)	36%	71%	25%	32%
Ages 18-24 (n=298)	16%	69%	27%	25%
Ages 25-29 (n=186)	16%	66%	34%	23%
Ages 30-39 (n=434)	19%	69%	42%	27%
Ages 40-49 (n=449)	19%	65%	35%	21%
Ages 50-64 (n=804)	19%	65%	37%	23%
Ages 65+ (n=622)	18%	55%	29%	17%

Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones.

"For nonfiction, I get books that are recommended by my friends, or browse the bestseller stack at a bookstore (then pirate an e-book online or borrow it from the library)," a college-aged online panelist wrote. "For fiction, I'll read everything by one author before finding a new author."

The way readers prefer to obtain their books in general: To buy or to borrow?

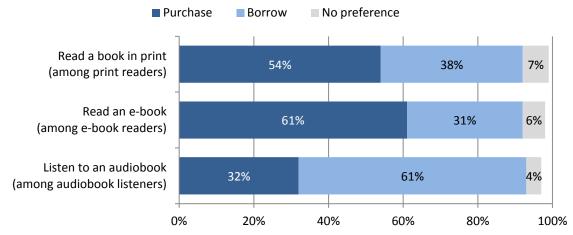
We asked the book readers in our survey how, in general, they prefer to obtain their books, and found that a majority of print readers (54%) and readers of e-books (61%) say they prefer to purchase their own copies of these books rather than borrow them from somewhere else. In contrast, most audiobook listeners prefer to borrow their audiobooks; just one in three audiobook listeners (32%) prefer to purchase audiobooks they want to listen to, while 61% prefer to borrow them.

Among print readers, younger respondents are generally no more or less likely than older age groups to say they prefer to purchase their books, the most common response from print readers. However, those under age 30 are more likely to prefer to borrow than older adults (who are more likely to not have a preference). Similarly, there are no significant differences in preferences between age groups among audiobook listeners or among e-book readers.

"It mainly depends on availability at the library and how badly I want to read the book 'right now.' If the queue for the library e-book is too long, I'll just buy it. If it's a reference book that I'm only using temporarily, I'll borrow it, but if it's something that I foresee needing in the future, I'll buy," an online panelist told us.

When you want to do the following, do you prefer purchasing your own copy, or borrowing it from a library or some other source?

Among Americans ages 16+ who in the past year read print books, e-books, and audiobooks, respectively



Source: Dec. 2011 results are from a survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones. N for print book readers= 2,295. N for e-book readers=793. N for audiobook listeners=415.

Our online panel of e-book borrowers generally preferred to borrow books, and our respondents were often very particular about which books they chose to purchase. Purchased print books especially were often referred to as investments of sorts, chosen in order to re-read, share with others, or pass on to one's children. A respondent in her late twenties wrote, "If I read a borrowed book and LOVE it and wish to own it for future re-reads I will buy it. I also generally buy special edition copies of classics (for example, Penguin's Hardcover Classics or Puffin's Children's classics)." Another said that she might choose to purchase "a particularly dear or beautiful book," such as the books of the *Harry Potter* series.

"I only buy brand new print books if it's a series I collect, or a book that has special meaning," a collegeaged panelist in a large metro area wrote. "I will often buy older books from a used book store so that I can read them and sell them back. I buy e-books if it's a book that I'm looking forward to but not necessarily one that I need to add to a collection." He added that with some series, such as *Harry Potter* and *Games of Thrones*, he would purchase both the print and e-book editions.

"If the book is a 'quick read' [or] fiction, and if I am not likely to make highlights and notes, I don't mind borrowing [an e-book]," an e-book borrower in her late twenties wrote, "but if it is a factbook, or if I make notes and highlights . . . I want to access my notes in the future. Sometimes I buy, but when the price is twice the paperback version I borrow the book from the library and rip it."

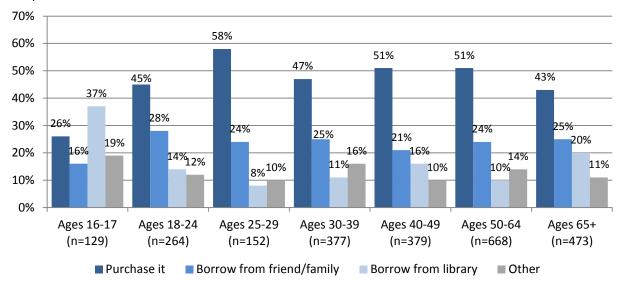
One college-aged online panelist will browse bookstores for inspiration, but turns to his library for the actual books. "When I go to bookstores I always take pictures of the book so that I can look for it later in my library," he wrote. A rural reader in her late twenties has another method: "If the library doesn't have all of the books in a series or by a favorite author, I may look for them at a used bookstore," she said.

Where did the most recent book come from?

We also asked book readers how they had obtained the most recent book they read (in any format). Among younger Americans ages 16-29 who read a book in the past year, 45% said they had purchased it, 24% said they had borrowed it from a friend or family member, and 17% said they borrowed it from a library. Some 13% said they had obtained it some other way.¹²

Thinking about the last book you read, in any format, did you...

Among Americans ages 16+ who read a book in the past 12 months, the percentage who got their most recent book from each source



Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones. N for people who read a book in any format in the past 12 months=2,474.

High-school-age readers (ages 16-17) were more likely to have borrowed the last book they read from the library than they are to have bought it, a pattern that soon reverses for older adults—almost six in ten readers in their late twenties said they had purchased their last book. And while a plurality of college-aged readers (ages 18-24) purchased the last book they read, they are also more likely than many other age groups to have borrowed the last book they read from a friend.

Asked about the last book he read, one college-aged online panelist said, "It was the second novel in a series that was released digitally at midnight, and I had to read it ASAP, so I bought the digital copy (via iBooks) instead of waiting for it on the library's waiting list for the physical copy."

Another online respondent working his way through a series had a less legitimate method: "I read it as an e-book on my laptop. I pirated it."

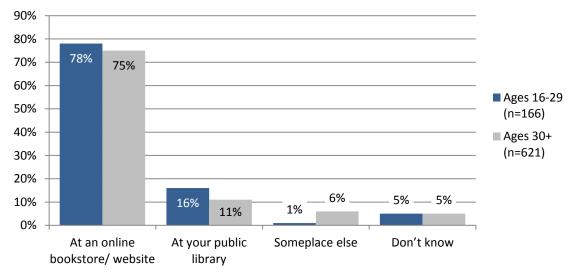
¹² Among all Americans ages 16 and older, 48% of readers said they had purchased it, 24% said they had borrowed it from a friend or family member, and 14% said they borrowed it from a library. Some 13% said they obtained it some other way.

A closer look at e-books

When they want to read a particular e-book, e-book readers under age 30 have the same general habits as older readers. Some 78% of e-book readers ages 16-29 said that they usually look for it first at an online bookstore or website, and 16% said they tend to look first at their public library.

When you want to read a particular e-book, where do you look first?

Among Americans ages 16+ who read an e-book in the past 12 months



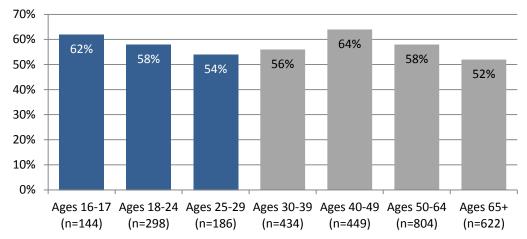
Source: Dec. 2011 results are from a survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones. N for people who read an e-book in past 12 months=793.

Part 3: Library use and importance

We were interested to know about how the rise of e-books has affected people's library use and experiences, so we asked about ownership of library cards. Our national survey showed that 58% of Americans ages 16 and older said they had a library card. And it turns out that library card ownership bounces around by different age groups.

Who owns a library card?

Among each group of Americans ages 16+, the percentage who say they have a library card



Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones.

We also asked respondents about ways they have used their local public library in the past year, including checking out books, getting research assistance, reading newspapers and magazines, and accessing databases:

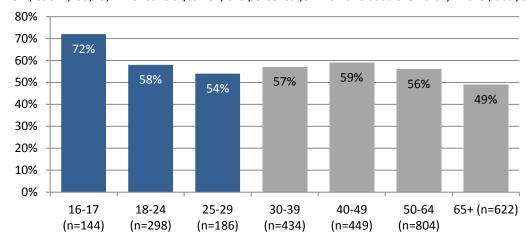
- 37% of Americans under age 30 (and 35% of all Americans) used their library in the past year to borrow print books.
- 28% of those under age 30 (and 20% of all Americans) received research help from a librarian in the past year.
- 27% of those under age 30 (and 25% of all Americans) used their library to access historical documents or archives or genealogical records.
- 24% of those under age 30 (and 22% of all Americans) used their library to access specialized databases such as legal or public records.
- 16% of those under age 30 (and 14% of all Americans) used their library to access or borrow magazines or journals.
- 12% of those under age 30 (and 14% of all Americans) used their library to access or borrow newspapers or news articles.

- 3% of those under age 30 (and 4% of all Americans) used their library in the past year to borrow audiobooks.
- 2% of those under age 30 (and 2% of all Americans) used their library in the past year to borrow e-books.

Overall, 60% of Americans under age 30 (and 56% of all Americans ages 16 and older) said that they had used a public library at least once in the past year for one of the activities we queried. High schoolers (ages 16-17) were by far the most likely cohort to have used the library for at least one of these purposes in the previous year.

Library user demographics

Among each group of Americans ages 16+, the percentage who have used the library in the past year



Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones.

When we examined the data by age group, several trends stood out. Those 65 and older are the least likely to have used a library in the past 12 months, while high schoolers are by far the most likely ages group to have visited a library, especially for research purposes.

It is important to note that we asked no questions about technology use at libraries because that was outside the scope of this current part of our research. Other studies by Pew Internet and others have documented that library patrons are often eager users of computers and internet connections at local libraries.¹³ Thus, it is likely that a number of additional Americans use their libraries for access to technology and the overall number of "library users" is greater than 56%.

Indeed, we heard repeatedly from librarians in one of our online panels that technology use and technology support is a major aspect of their work with patrons. "It seems that most people who actually contact a librarian are looking for help navigating the site and downloading e-books," one librarian told us. Another wrote, "We spend a significant part of our day explaining how to get library

¹³ See "Libraries, Patrons, and E-books" (2012). http://libraries.pewinternet.org/2012/06/22/libraries-patrons-and-e-books/

books onto e-book readers." Future surveys in the $\underline{\text{next stage of our libraries research}}$ will explore technology services at libraries in more detail. 14

¹⁴ Our full research timeline is available at http://libraries.pewinternet.org/about/research-timeline/

Library use in the past year

Among Americans ages 16+ in each group, the percentage who have used the library for the following purposes in the past year

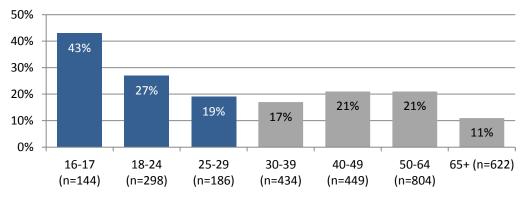
	Total used library in the past year	Total used the library		
		For research	To borrow books	To borrow newspapers /etc.
All ages 16 and older	56%	40%	36%	22%
16-17 (n=144)	72	55	51	20
18-24 (n=298)	58	45	36	23
25-29 (n=186)	54	41	33	25
30-39 (n=434)	57	40	40	20
40-49 (n=449)	59	40	43	21
50-64 (n=804)	56	39	32	24
65+ (n=622)	49	32	28	23

Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones.

When it comes to getting research help from a librarian or borrowing print books, the youngest patrons are by far the most likely age group to avail themselves of these resources. High schoolers, 43% have gotten research help from a librarian in the past year, compared with 20% of all respondents. Most of the high schoolers who received research assistance had done so five times or less in the past year.

Those who have received research help from a librarian in the past year

Among Americans ages 16+, the percentage who have gotten research help from a librarian in the past 12 months



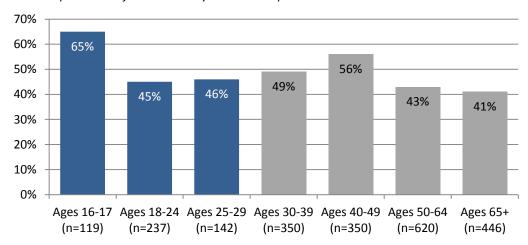
Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones.

When we asked about accessing specialized databases or historical records, or accessing or borrowing newspapers or news articles, we found few (if any) significant differences in use by age—although respondents under age 30 are more likely to have accessed or borrowed magazines or journals at a public library in the past 12 months.

Among print readers, 65% of high schoolers had checked out a print book from a public library in the past year (compared with 48% of all respondents), with roughly half of these borrowers having done so one to five times. Meanwhile, among audiobook listeners, the youngest respondents were generally less likely than older adults to have checked out audiobooks from a library. Among e-book readers, there were no differences among age groups for checking out e-books.

Borrowed print books from the library

Among Americans ages 16+ who read a print book in the past 12 months, the percentage who borrowed print books from the library in that time period



Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones. N for the number people who read a print book in the past 12 months=2,295.

How patrons' library habits are changing

Many of our online panelists said that they used their library's website much more often since they started borrowing e-books, but were split on how their in-person visits to the library's physical branch have been affected.

A high school-aged rural respondent, for instance, wrote that since she started borrowing e-books, "I tend to go to the physical branch less often because if I can borrow a book in digital format I can start reading it faster." Another panelist wrote that while he preferred borrowing e-books to print books, he would visit the library when that was not possible: "I go to the library branch to search for books that I can't get online, and I also go there to do some reading and discover any new books that the library has gotten in."

Not everyone has seen a change in their reading habits. "Nothing has changed so far. Even if I can borrow e-books from home I would still like to go and visit the library," a woman in her late twenties told us. "There are many services and events provided by the library that I would like to be a part of."

Another college-aged respondent wrote that she used her e-reader to borrow e-books, but not for other library activities: "I don't use my Kindle Fire for research or to access any databases on the Internet. I use my library's website to get into their databases, like LearningExpress and Job & Career Builder. I usually go through my library's website to access their catalog and look for e-book titles."

Finally, others wrote that borrowing e-books inspired them to use their library more for other services. "I actually go to the library more than I did before I had my e-reader," a respondent in her late twenties wrote. "I find myself engaged by the ability to download e-books and more excited to see what's new in the branch." Added another: "I pretty much got my Kindle only because the library started offering e-books to check out. I still love books in print and will pick a print book over an e-book if I have the option . . . I would say I go to the library only slightly less than I used to."

A college-aged panelist from a large city described her relatively fluid reading habits this way:

"I go to the library just as much as I used to and read just as much printed word as before. My ereader is a last-resort, back-up deal for me. I need an electronic book while I'm flying because I love to read but a printed book in a plane makes me sick. Another example is that I am moving this week, and have been packing up my personal books and returning my library books, but I still want something to read. In that case, an e-book is invaluable. I'm in the middle of *Bleak House* by Charles Dickens right now, but as soon as I move to new place I'm going to pick up a print copy from the nearest library."

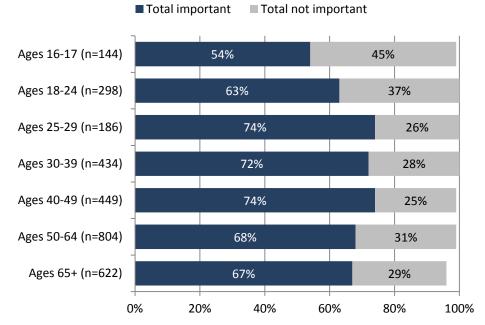
Importance of the library

We also asked a broader question of respondents about how important, if at all, the library was to them and their families. In general, almost seven in ten Americans (69%) say that public libraries are important to them and their family: 38% of Americans ages 16 and older say that the public library is "very important," and 31% say it is "somewhat important." Some 17% say it is "not too important," while 13% say it is "not important at all."

Even though they are the highest-using library cohort, high schoolers are least likely to say that the library is important to them and their family. While a majority of respondents in all age groups say that the public library is at least somewhat important to them and their family, just 45% of high schoolers say that the library is not important or "not too important".

How important is the public library to your family?

Among Americans ages 16+ in each group, the total percentages of those who said the library was important ("very important" or "somewhat important") and not important ("not too important" or "not important at all") to them and their family



Source: Pew Research Center's Internet & American Life Reading Habits Survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones.

A closer look at e-book borrowing

Checking out e-books

The patrons who responded to our online questionnaire generally learned about e-book lending at their library's physical branch or through direct online communication from the library.

Many seem to have heard about e-book borrowing from the library's website—especially patrons who were already using the library's website regularly to reserve books. "I saw it on the library's website. If you sign up with your email, the library regularly sends out updates and news which also includes information about e-books and other online services," a respondent in her late twenties said. "I think my library does a great job communicating information to its patrons."

Still others simply noticed the option for e-books in online catalogues by chance. "I think I found out only because I regularly visit my library's website to reserve books and search the catalog. I don't think I ever saw it advertised anywhere," another panelist in her late twenties wrote. "Maybe they could send out a mailer to let people know?"

"I was exploring the library webpage and found a link to NetLibrary. No one told me it was there, in fact, some staff seemed surprised when I showed it to them," one respondent said. "Our library obviously did not do a very good job of communicating e-books to the customers before. They seem to only really talk about it to people who tell them they have a Nook or Kindle and forget that almost everyone has a phone these days."

Others learned of the program through word-of-mouth or local newspaper ads. "A friend told me about it," a college-aged respondent said. "A newsletter with new releases and upcoming titles would be beneficial."

Finally, many had been unaware of whether or not their library offered e-books, but started seeking out information on e-book borrowing once they had purchased an e-reader (or were thinking of getting one). "When we thought about purchasing an e-reader, we researched [on the library's website] to see if they supported e-readers," a panelist in his late twenties said. A college-aged respondent didn't find out about e-book borrowing until he went to purchase his device. "The salesperson at Barnes and Noble (where I bought my e-reader) told me about the service," he said.

Most of our online panelists said that e-books at their library could be checked out for two or three weeks on average, and they usually felt this check-out period was appropriate:

- "At our digital library, the checkout period is about the same as it normally is (14 days). I feel
 this is just about right," a college-aged respondent wrote. "Most of the time I don't require
 more than 14 days to read an average book, and if I do, I shouldn't be reading it at all because
 clearly it isn't interesting to me."
- "It's three weeks, I think, with no renewal," a panelist in his late twenties said, adding that he found this period "a bit too short."
- "I have the option for a seven, 14 or 21-day lending period for each title," another panelist in her late twenties wrote. "I feel this is fair given that print books are also lent at a three-week checkout period (sometimes shorter for newer books)."

One college-aged respondent had his own method for dealing with check-out periods: "I give
myself a week to read a book, so I don't forget about it and get hit with fines. Fines are no
longer an issue with e-books, but it's a habit."

Patron experiences borrowing e-books

As e-book demand has increased in recent years with the introduction of dedicated e-book readers, public libraries' electronic holdings have not always kept pace. The size and scope of each library's e-book collections are determined not only by the resources and priorities of that library, but also by availability of many titles. Many publishers, concerned about the potential of e-book piracy and loss of sales, do not sell e-books to libraries at all; others impose restrictions or higher prices for in-demand titles. (More information is available here.¹⁵)

In our national survey, the 12% of all e-book readers ages 16 and older who borrow e-books from libraries are generally positive about the selection they are offered. Among those who borrowed e-books from a public library in 2011, almost two-thirds say the selection at their library is "good" (32%), "very good" (18%), or "excellent" (16%). Some 23% say the selection is only "fair," and 4% say it is "poor."

We also asked those who borrowed e-books whether they had experienced several of the difficulties that could be associated with such borrowing, and found that:

- 56% of e-book borrowers said that at one point or another they had tried to borrow a particular book and found that the library did not carry it.
- 52% of e-book borrowers said that at one point or another they discovered there was a waiting list to borrow the book.
- 18% of e-book borrowers said that at one point or another they found that the e-book they were interested in was not compatible with the e-reading device they were using.

Among our online panelists, respondents of all ages wished for more e-book titles and shorter waiting lists for those that were available. One college-aged panelist had her own trick for dealing with her library's e-book selection: "What works best is enjoying weird novels. There are no copies of the latest James Patterson novel. However, if you want to read his third novel, you might be able to find it. Likewise, many classics are perpetually available."

Overall, our online panelists found their libraries' e-book check-out process to be relatively painless, although that is not to say they didn't have suggestions for improvement. "The app is very easy to use and hassle free," a college-aged panelist wrote. "I like that I can read on my phone or iPad, and my page will sync across devices automatically." Another agreed: "I have mastered the advanced search function, so it is quick and easy to find books. The checkout process is laborious if I am not logged in, so I try to log in when I go looking for books so it is only a few clicks to checkout."

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¹⁵ More information is available in "Libraries, patrons, and e-books" (2012), Part 1: "An introduction to the issues surrounding libraries and e-books." http://libraries.pewinternet.org/2012/06/22/part-1-an-introduction-to-the-issues-surrounding-libraries-and-e-books/

Another college-aged respondent also had issues with the log-in process—and the service in general. "[The system] doesn't have any recommendations just what's popular, the mobile version is clunky and hard to navigate," he said. "[It] never stays logged in on a device!"

Many were also frustrated with the multiple log-in screens they are required to navigate when checking out e-books. "It would really be nice if we could check out and download in a few steps, rather than 6+ steps," a college-aged respondent suggested. "It's confusing for all the different devices and it would be nice if the process was the same for a Kindle, Nook, iPad, laptop, etc."

"Automatically checking out books when they become available would be nice," a respondent in her late twenties suggested. "I just lost a book I'd been waiting for weeks because I was travelling and could not download it."

And while our young online panelists generally felt that it was easy enough to search for e-books on their libraries' systems, browsing was another matter:

- "Make it easier to browse books. Maybe provide a paragraph on what the book is about, and a link to the reading sample (if there is one). Also maybe a blurb that says 'this author is best known for...'" a college-aged panelist suggested, adding: "Those would be nice features, but really if you would just make the e-book browse as functional as the digital card catalog, that would be very, very nice."
- "Try to make a list of the new e-books that become available, especially for new releases," a suburban college-aged respondent wrote.
- Another panelist was more succinct: "Just keep adding books. The better the selection, the more people will use it."

Others just wanted to be able to access the e-books that are currently available. "Standards would make life easier," a college-aged respondent told us. He suggested either the creation of a new e-book standard or the ability for devices to read more formats, since "there is not one device that is compatible with all of OverDrive's formats."

Young respondents with multiple gadgets said they often encountered compatibilities issues:

- An e-book borrower in her late twenties said, "Many books are not available for Apple products and the OverDrive app will not turn up those books in a search. I am often confused about what is available and need to search on the computer to find what I want first."
- Another told us that "[having] multiple formats is very frustrating for audiobooks. I own a Mac, which means that I cannot download WMA audiobooks to my computer (even though my device could play it if it could be transferred onto it.)"

Part 4: Non-e-book borrowers

Most Americans are unaware of e-book lending at their local public library

As our previous report noted, even though the American Library Association reports that 76% of public libraries lend e-books to patrons, most Americans are not sure whether or not their local library offers this service. He was well if their public library lent e-books to patrons, 52% of respondents ages 16-29 who do not already read or borrow e-books from libraries did not know if their library lends e-books. Another 19% say that their library does lend out e-books, and 29% say that they know it does not. Though their overall responses were similar, non-borrowers ages 30 and older were more likely than younger non-borrowers to say that their library does lend out e-books, or that they weren't sure; younger non-borrowers were more likely to say that they knew their library did not.

When we asked those who do not borrow e-books why they do not do so, there was no single dominant reason as to why not—and younger respondents generally cited the same issues as older adults. Overall, about 28% non-borrowers under age 30 cited issues of convenience, often saying it was easier to obtain e-books another way. About one in five (19%) said that they didn't know their library offered e-books in the first place.¹⁷

About half of those who don't currently borrow e-books would be interested in borrowing pre-loaded e-readers—especially younger age groups

We also asked those who do not get e-books at the public library (including those who do not read e-book in general) about how likely they would be to use various resources if they were offered by their public library:

- 58% of those under age 30 who do not currently borrow e-books from libraries—including 60% of high schoolers and college-aged adults—say they would be "very" or "somewhat" likely to borrow an e-reading device pre-loaded with a book they wanted to read (compared with 46% of all respondents).
- 33% of those under age 30 say they would be "very" or "somewhat" likely to take a library class on how to download e-books onto handheld devices (compared with 32% of all respondents).
- 31% of those under age 30 say they would be "very" or "somewhat" likely to take a course at a library in how to use an e-reader or tablet computer (compared with 31% of all respondents).

Younger respondents about as likely as older respondents to say that they would be interested in classes or instruction on how to use e-readers or tablets, and a similar number are interested in classes on how to download library e-books to a handheld device (as shown in the chart below). Interest in e-book-related classes peaks among the 50-64 year-old age group, but is lowest with adults ages 65 and older.

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¹⁶ "Libraries Connect Communities: Public Library Funding & Technology Access Study 2011-2012," the American Library Association and the Information Policy & Access Center (University of Maryland), June 19, 2012. http://www.ala.org/research/plftas/2011 2012

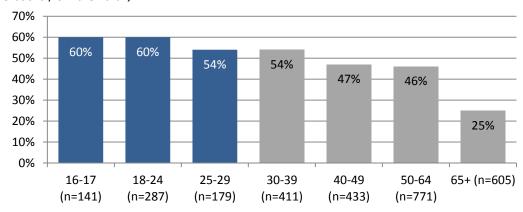
¹⁷ More: http://libraries.pewinternet.org/2012/06/22/part-7-non-e-book-borrowers/

In fact, non-borrowers ages 65 and older are the age group least likely to be interested in any of the three resources we asked about.

How likely non-e-book-borrowers would be to...

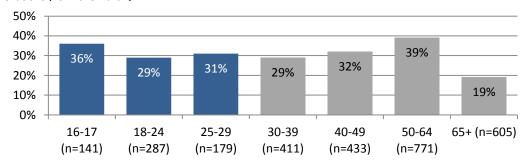
...borrow pre-loaded e-readers from their local library

Among Americans ages 16+ who do not read e-books, or those who read e-books but do not borrow e-books from the library



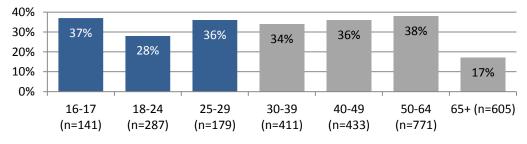
...take classes on how to use e-readers or tablets

Among Americans ages 16+ who do not read e-books, or those who read e-books but do not borrow e-books from the library



...take classes on how to download e-books from the library to e-reading devices (such as e-readers or tablets)

Among Americans ages 16+ who do not read e-books, or those who read e-books but do not borrow e-books from the library



Source: Dec. 2011 results are from a survey of 2,986 people ages 16 and older conducted November 16-December 21, 2011. The survey was conducted in English and Spanish and on landline and cell phones. N for people who do not read e-books or who read e-book but do not borrow e-books from the library =2,874.

Part 5: Looking to the future

The future of e-books at libraries

Our online panelists' dreams for e-books at libraries echoed a common theme: All possible titles in all possible formats, available to all patrons on every type of device.

One college-aged respondent, for instance, wrote that he would like to see "a system that would provide unlimited downloads of titles. A system that would easily sync with all devices." Another respondent in her late twenties wrote that she would like to see libraries' e-book collections "expanding to include a bigger selection and have then in Mac compatible formats."

A panelist in his late twenties said that he hoped libraries would move their entire catalogs to a digital format, adding, "I think it would be important to make e-readers either borrowable or figure out a way to subsidize or make available for free to low earners."

Final thoughts

The e-book borrowers on our online panel were usually enthusiastic about the future of e-books at libraries, and the future of libraries in general. As one college-aged panelist told us, "[E-books are] an important service and has made me read more not less!" Added another: "[E-books are] the future of libraries, and I am very excited about it."

"I would like to see libraries do more of an outreach to patrons to ask what e-books they would like to see available, and/or what patrons can do to make sure more e-books are available. I think e-reading has been supported by libraries thus far, though there are growing pains (such as publishers not having a great lending model available for libraries yet for e-books)," a college-aged respondent wrote. "If there was something that we as patrons could do to help support this endeavor of our libraries, I would like for them to publicize it! I would definitely do what I could to support this in my library!"

At the same time, however, few panelists seemed to see e-books as a replacement for print books. "Though e-books are important," one panelist wrote, "we must keep an emphasis on our physical libraries as a community space and option for lower income and lower education neighborhoods who may not have access or knowledge of e-book devices and e-book use." Another panelist, in her late twenties, echoed this view: "As much as I love using my Kindle, I would find it devastating if the library were to dramatically reduce its print collection. I love the feel of physical books."

Methodology

Reading Habits Survey

Prepared by Princeton Survey Research Associates International for the Pew Research Center's Internet & American Life Project

December 2011

Summary

The Reading Habits Survey, conducted by the Pew Research Center's Internet & American Life Project, obtained telephone interviews with a nationally representative sample of 2,986 people ages 16 and older living in the United States. Interviews were conducted via landline (n_{LL} =1,526) and cell phone (n_{C} =1,460, including 677 without a landline phone). The survey was conducted by Princeton Survey Research Associates International. The interviews were administered in English and Spanish by Princeton Data Source from November 16 to December 21, 2011. Statistical results are weighted to correct known demographic discrepancies. The margin of sampling error for results based on the complete set of weighted data is ± 2.2 percentage points. Results based on the 2,571 internet users have a margin of sampling error of ± 2.3 percentage points.

Details on the design, execution and analysis of the survey are discussed below.

Design and Data Collection Procedures

Sample Design

A combination of landline and cellular random digit dial (RDD) samples was used to represent all adults in the United States who have access to either a landline or cellular telephone. Both samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications.

Numbers for the landline sample were drawn with equal probabilities from active blocks (area code + exchange + two-digit block number) that contained three or more residential directory listings. The cellular sample was not list-assisted, but was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers.

Contact Procedures

Interviews were conducted from November 16 to December 21, 2011. As many as seven attempts were made to contact every sampled telephone number. Sample was released for interviewing in replicates, which are representative subsamples of the larger sample. Using replicates to control the release of sample ensures that complete call procedures are followed for the entire sample. Calls were staggered over times of day and days of the week to maximize the chance of making contact with potential respondents. Interviewing was spread as evenly as possible across the days in field. Each telephone number was called at least one time during the day in an attempt to complete an interview. For the landline sample, interviewers asked to speak with the youngest adult male or female currently at home based on a random rotation. If no male/female was available, interviewers asked to speak with

the youngest adult of the other gender. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and gender when combined with cell interviewing.

For the cellular sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey. Cellular respondents were offered a post-paid cash reimbursement for their participation. Calls were made to the landline and cell samples until 1,125 interviews were completed in each. Once those targets were hit, screening for e-book and tablet owners was implemented. During the screening, anyone who did not respond with having an e-book or tablet device was screened-out as ineligible. All others continued the survey until approximately 700 e-reader/tablet owners were interviewed overall.

Weighting and analysis

The first stage of weighting corrected for the oversampling of tablet and e-reader users via screening from the landline and cell sample frames. The second stage of weighting corrected for different probabilities of selection associated with the number of adults in each household and each respondent's telephone usage patterns. This weighting also adjusts for the overlapping landline and cell sample frames and the relative sizes of each frame and each sample.

This first-stage weight for the ith case can be expressed as:

$$\begin{split} WT_i &= \frac{1}{\left(\frac{S_{LL}}{S_{CP}} \times \frac{1}{AD_i}\right)} \ if \ respondent \ has \ no \ cell \ phone \\ WT_i &= \frac{1}{\left(\frac{S_{LL}}{S_{CP}} \times \frac{1}{AD_i}\right) + R} \ if \ respondent \ has \ both \ kinds \ of \ phones \\ WT_i &= \frac{1}{P} \ if \ respondent \ has \ no \ land \ line \ phone \end{split}$$

Where S_{LL} = size of the landline sample

 S_{CP} = size of the cell phone sample

AD_i = Number of adults in the household

R = Estimated ratio of the land line sample frame to the cell phone sample frame

The equations can be simplified by plugging in the values for $S_{LL} = 1,526$ and $S_{CP} = 1,460$. Additionally, we will estimate of the ratio of the size of landline sample frame to the cell phone sample frame R = 1.03. The final stage of weighting balances sample demographics to population parameters. The sample is balanced to match national population parameters for sex, age, education, race, Hispanic origin, region

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 $^{^{18}}$ i.e., whether respondents have only a landline telephone, only a cell phone, or both kinds of telephone.

(U.S. Census definitions), population density, and telephone usage. The Hispanic origin was split out based on nativity; U.S born and non-U.S. born. The White, non-Hispanic subgroup is also balanced on age, education and region. The basic weighting parameters came from a special analysis of the Census Bureau's 2010 Annual Social and Economic Supplement (ASEC) that included all households in the United States. The population density parameter was derived from Census 2000 data. The cell phone usage parameter came from an analysis of the July-December 2010 National Health Interview Survey. 1920

Weighting was accomplished using Sample Balancing, a special iterative sample weighting program that simultaneously balances the distributions of all variables using a statistical technique called the *Deming Algorithm*. Weights were trimmed to prevent individual interviews from having too much influence on the final results. The use of these weights in statistical analysis ensures that the demographic characteristics of the sample closely approximate the demographic characteristics of the national population. Table 1 compares weighted and unweighted sample distributions to population parameters.

Table 1: Sample Demographics

Table 1: Sample Demogra	priics		
Parameter (16+)		Unweighted	Weighted
<u>Gender</u>			
Male	48.6	47.2	48.9
Female	51.4	52.8	51.1
<u>Age</u>			
16-24	16.0	15.0	14.2
25-34	17.3	14.0	15.1
35-44	17.0	14.9	17.3
45-54	18.7	17.6	18.7
55-64	14.8	17.3	18.5
65+	16.2	21.2	16.2
<u>Education</u>			
Less than HS Graduate	16.8	11.5	15.5
HS Graduate	33.8	26.7	33.3
Some College	23.1	23.3	23.9
College Graduate	26.3	38.5	27.3
Race/Ethnicity			
White/not Hispanic	68.0	73.1	67.7
Black/not Hispanic	11.7	10.8	11.9
Hisp - US born	6.4	6.5	6.8
Hisp - born outside	7.5	4.3	7.3
Other/not Hispanic	6.2	5.3	6.2

¹⁹ Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, July-December, 2010. National Center for Health Statistics. June 2011.

²⁰ The phone use parameter used for this 16+ sample is the same as the parameter we use for all 18+ surveys. In other words, no adjustment was made to account for the fact that the target population for this survey is slightly different than a standard 18+ general population survey.

<u>Region</u>			
Northeast	18.5	15.8	18.2
Midwest	22.0	24.1	22.7
South	36.9	37.3	37.0
West	22.6	22.7	22.1
County Pop. Density			
1 - Lowest	20.1	23.6	20.3
2	20.0	21.2	20.1
3	20.1	22.3	20.4
4	20.2	17.6	20.2
5 - Highest	19.6	15.2	18.9
<u>Household Phone Use</u>			
LLO	9.3	5.0	8.3
Dual/few, some cell	41.7	51.7	42.3
Dual/most cell	18.5	20.6	19.0
CPO	30.5	22.7	30.5

Effects of Sample Design on Statistical Inference

Post-data collection statistical adjustments require analysis procedures that reflect departures from simple random sampling. PSRAI calculates the effects of these design features so that an appropriate adjustment can be incorporated into tests of statistical significance when using these data. The so-called "design effect" or *deff* represents the loss in statistical efficiency that results from systematic non-response. The total sample design effect for this survey is 1.46.

PSRAI calculates the composite design effect for a sample of size n, with each case having a weight, w_i as:

$$deff = \frac{n\sum_{i=1}^{n} w_{i}^{2}}{\left(\sum_{i=1}^{n} w_{i}\right)^{2}}$$
 formula 1

In a wide range of situations, the adjusted *standard error* of a statistic should be calculated by multiplying the usual formula by the square root of the design effect (*Vdeff*). Thus, the formula for computing the 95% confidence interval around a percentage is:

$$\hat{p} \pm \left(\sqrt{\text{deff}} \times 1.96\sqrt{\frac{\hat{p}(1-\hat{p})}{n}}\right)$$
 formula 2

where \hat{p} is the sample estimate and n is the unweighted number of sample cases in the group being considered.

The survey's margin of error is the largest 95% confidence interval for any estimated proportion based on the total sample—the one around 50%. For example, the margin of error for the entire sample is ±2.2 percentage points. This means that in 95 out every 100 samples drawn using the same methodology, estimated proportions based on the entire sample will be no more than 2.2 percentage points away from their true values in the population. It is important to remember that sampling fluctuations are only one possible source of error in a survey estimate. Other sources, such as respondent selection bias, questionnaire wording and reporting inaccuracy, may contribute additional error of greater or lesser magnitude.

Response Rate

Table 2 reports the disposition of all sampled telephone numbers ever dialed from the original telephone number samples. The response rate estimates the fraction of all eligible respondents in the sample that were ultimately interviewed. At PSRAI it is calculated by taking the product of three component rates:²¹

- Contact rate—the proportion of working numbers where a request for interview was made²²
- Cooperation rate—the proportion of contacted numbers where a consent for interview was at least initially obtained, versus those refused
- Completion rate—the proportion of initially cooperating and eligible interviews that were completed

Thus the response rate for the landline sample was 14 percent. The response rate for the cellular sample was 11 percent.

Table 2: Sample Disposition

	<u> </u>	
Landline	Cell	
66,518	60,997	Total Numbers Dialed
2,876	919	Non-residential
3,004	142	Computer/Fax
16		Cell phone
32,283	22,623	Other not working
3,844	887	Additional projected not working
24,495	36,426	Working numbers
36.8%	59.7%	Working Rate
1,281	296	No Answer / Busy
7,092	13,997	Voice Mail
118	27	Other Non-Contact

²¹ PSRAI's disposition codes and reporting are consistent with the American Association for Public Opinion Research standards.

²² PSRAI assumes that 75 percent of cases that result in a constant disposition of "No answer" or "Busy" are actually not working numbers.

16,004	22,106	Contacted numbers
65.3%	60.7%	Contact Rate
902	3,485	Callback
11,408	14,644	Refusal
3,694	3,977	Cooperating numbers
23.1%	18.0%	Cooperation Rate
104	129	Language Barrier
1,960	2,362	Child's cell phone / Oversample Screenout
1,630	1,486	Eligible numbers
44.1%	37.4%	Eligibility Rate
104	26	Break-off
1,526	1,460	Completes
93.6%	98.3%	Completion Rate
14.1%	10.7%	Response Rate

Qualitative material from the online panel

The qualitative material in this report, including the extended quotes from individuals regarding e-books and library use, comes from two sets of online interviews that were conducted in May 2012. The first group of interviews was of library patrons who have borrowed an e-book from the library. Some 6,573 people answered at least some of the questions on the patron canvassing, and 4,396 completed the questionnaire. The second group of interviews was of librarians themselves. Some 2,256 library staff members answered at least some of the questions on the canvassing of librarians, and 1,180 completed the questionnaire. Both sets of online interviews were opt-in canvassings meant to draw out comments from patrons and librarians, and they are not representative of the general population or even library users. As a result, no statistics or specific data points from either online questionnaire are cited in this report.